

**SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN
(SWEAP)**

**THE CURRENT SITUATION IN METROPOLITAN TORONTO
AND THE GREATER TORONTO AREA**

A paper presented at the conference on Municipal Solid Waste, January 24, & 25, 1990 at the Radisson Hotel, Toronto, Ontario by W.G. Crowther, P.Eng., Assistant Director, Solid Waste Management Division, Metro Works Department

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BACKGROUND

ON JANUARY 1, 1967, BY AMENDMENT OF THE METROPOLITAN TORONTO ACT, METROPOLITAN TORONTO ASSUMED RESPONSIBILITY FOR THE DISPOSAL OF WASTE GENERATED WITHIN METRO. THE COLLECTION OF MUNICIPAL SOLID WASTE REMAINED THE RESPONSIBILITY OF THE AREA MUNICIPALITIES. AT THAT TIME, MUNICIPAL DISPOSAL FACILITIES CONSISTED OF SEVEN INCINERATORS.

HOWEVER, IN THE KNOWLEDGE THAT CHANGES IN THE WASTE DISPOSAL SITUATION WERE IMPENDING, METROPOLITAN TORONTO COUNCIL ENGAGED CONSULTANTS IN MARCH, 1966, TO FORMULATE A PLAN FOR THE MANAGEMENT OF WASTE GENERATED WITHIN THE METROPOLITAN PLANNING AREA. THE CONSULTANTS CONCLUDED THAT THE MOST PRACTICAL APPROACH TO SOLID WASTE MANAGEMENT IN THE METRO AREA WAS SANITARY LANDFILL AND CONTROLLED MUNICIPAL INCINERATION.

IN THE EXAMINATION OF EXISTING INCINERATORS, IT WAS DETERMINED THAT ONLY THE THEN EXISTING COMMISSIONERS AND THE INGRAM INCINERATORS WERE SUITABLE FOR INCLUSION IN THE WASTE MANAGEMENT PLAN, TOGETHER WITH THE DUFFERIN INCINERATOR, WHICH WAS STILL UNDER CONSTRUCTION AT THE TIME OF THE CONSULTANTS' REPORT. THE PLAN WHICH WAS OFFICIALLY ADOPTED IN PRINCIPLE BY THE METROPOLITAN COUNCIL INCLUDED THE FOLLOWING RECOMMENDATIONS:

- THE ACQUISITION OF THREE NEW MAJOR LANDFILLS AT AN EARLY DATE;
- THE USE OF TWO EXISTING INCINERATORS AND ONE UNDER CONSTRUCTION AT THAT TIME; AND
- THE CONSTRUCTION OF SIX NEW TRANSFER STATIONS.
- SINCE 1967 INCINERATION HAS BEEN COMPLETELY PHASED OUT. THE LAST OPERATING INCINERATOR, COMMISSIONERS STREET WAS CLOSED ON JULY 30, 1988. THAT FACILITY WAS ORDERED TO BE CLOSED BY METRO COUNCIL, IN RESPONSE TO PUBLIC HEALTH CONCERNS, EVEN THOUGH THE PLANT WAS IN

COMPLIANCE WITH THE MINISTRY OF THE ENVIRONMENT REGULATIONS AND THE RESULT OF RISK ASSESSMENT STUDIES THEN UNDERWAY, WERE NOT YET AVAILABLE.

THE CURRENT SYSTEM CONSISTS OF SEVEN TRANSFER STATIONS AND TWO LANDFILLS. AT PRESENT, WASTE WHICH IS RECEIVED AT THE DISCO, INGRAM, BERMONDSEY, VICTORIA PARK AND DUFFERIN TRANSFER STATIONS IS HAULED TO OUR KEELE VALLEY LANDFILL SITE IN THE REGION OF YORK. THE BROCK WEST LANDFILL SITE IN THE REGION OF DURHAM RECEIVES WASTES FROM THE SCARBOROUGH TRANSFER STATION AS WELL AS MUNICIPAL AND INDUSTRIAL COMMERCIAL WASTE FROM THAT REGION AND INDUSTRIAL/COMMERCIAL WASTE FROM EASTERN METRO.

THERE ARE IN ADDITION TO THE METROPOLITAN TORONTO FACILITIES, ADDITIONAL PUBLIC AND PRIVATE SECTOR WASTE MANAGEMENT FACILITIES. IN METRO THERE ARE TWO PRIVATE SECTOR TRANSFER STATIONS.

IN THE REGION OF DURHAM THERE ARE THREE SMALL MUNICIPAL LANDFILLS AND TWO MUNICIPAL TRANSFER STATIONS AS WELL AS ONE PRIVATE SECTOR LANDFILL. HOWEVER, APPROXIMATELY 75% OF THE REGION'S TOTAL WASTE IS DISPOSED OF IN METROPOLITAN TORONTO'S FACILITIES.

IN THE REGION OF YORK THERE ARE, IN ADDITION TO THE METROPOLITAN TORONTO KEELE VALLEY LANDFILL, THREE SMALL MUNICIPAL LANDFILLS AND ONE PRIVATE SECTOR TRANSFER STATION. HOWEVER, APPROXIMATELY 95% OF ALL WASTE GENERATED IN THE REGION IS DISPOSED OF AT METROPOLITAN TORONTO'S FACILITIES.

IN 1967, 488,529 METRIC TONNES OF SOLID WASTE WERE DISPOSED OF AT METROPOLITAN TORONTO FACILITIES. BY 1987 THE ANNUAL TOTAL OF SOLID WASTE MANAGED BY METRO HAD INCREASED TO 3,250,703 METRIC TONNES AND REMAINED APPROXIMATELY AT THAT LEVEL IN 1988 AND IN 1989; THIS IS LARGELY A RESULT OF MAJOR INCREASES IN TIPPING FEES INSTITUTED SINCE MAY, 1988 AND THE REDUCTION, RE-USE AND RECYCLING INITIATIVES UNDERTAKEN BY THE METROPOLITAN

CORPORATION. AS CAN BE SEEN FROM THE GRAPH ON PAGE 4, THE RATE OF GROWTH IN WASTE HANDLED HAD BEEN RELATIVELY CONSTANT THROUGHOUT THE PERIOD FROM 1967 TO APPROXIMATELY 1983, BUT SINCE THAT TIME IT HAS INCREASED DRAMATICALLY.

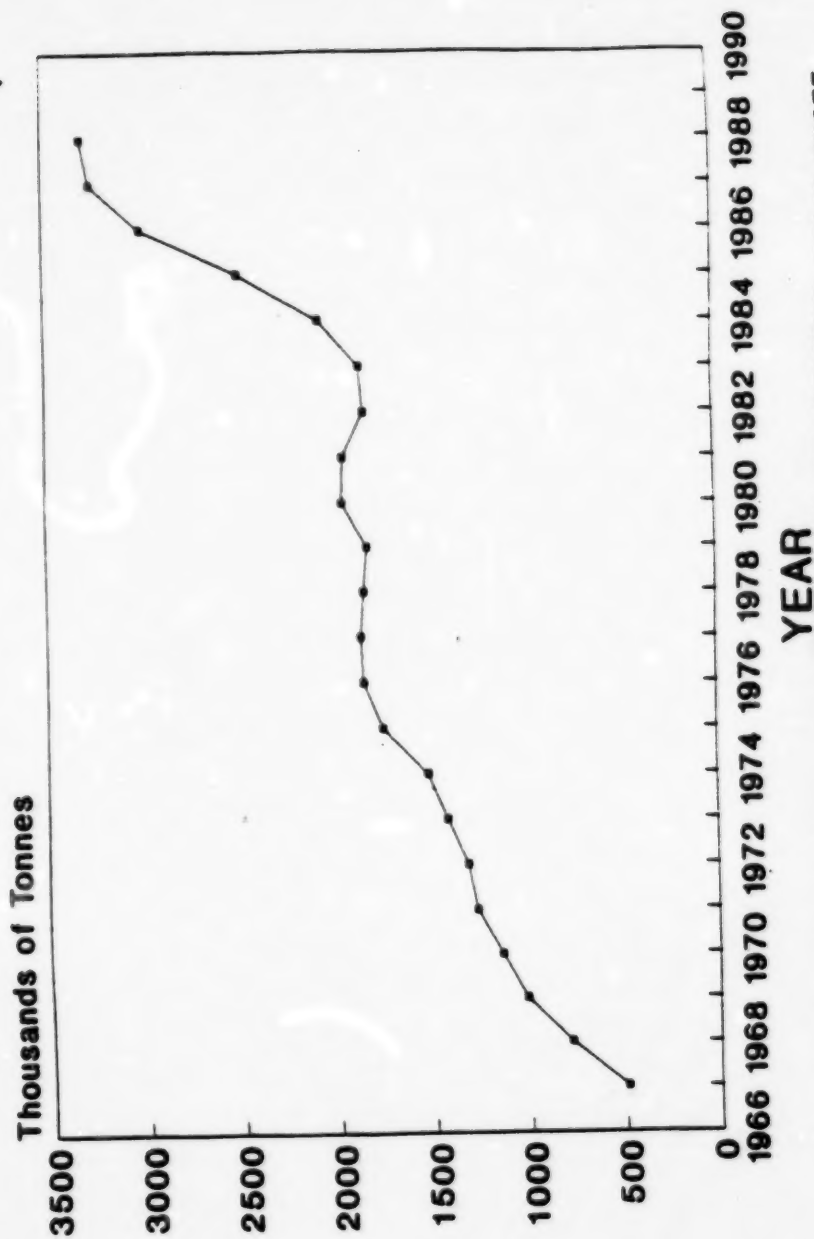
OF THE 3,250,000 METRIC TONNES DISPOSED OF BY METRO IN 1988, APPROXIMATELY 40% WAS DOMESTIC WASTE, A FURTHER 10% WAS WASTE FROM MISCELLANEOUS MUNICIPAL OPERATIONS, LOCAL BOARDS AND COMMISSIONS, AND THE REMAINING 50% WAS INDUSTRIAL/COMMERCIAL WASTE.

THERE ARE MANY FACTORS WHICH HAVE CONTRIBUTED TO THIS LARGE INCREASE IN WASTE HANDLED BY METRO SINCE 1983. THESE INCLUDE THE CLOSURE OF SMALLER LANDFILLS, POPULATION AND EMPLOYMENT INCREASES, AND ECONOMIC GROWTH. THREE LANDFILLS, TWO IN THE REGION OF YORK AND ONE IN THE REGION OF DURHAM CLOSED DURING THIS PERIOD. PRIOR TO THEIR CLOSURE, THESE THREE SITES HAD BEEN RECEIVING A TOTAL OF 450,000 TONNES PER ANNUM.

DURING THE PERIOD 1981 TO 1986 POPULATION IN METRO, YORK AND DURHAM INCREASED BY APPROXIMATELY 150,000 WITH THE NUMBER OF PEOPLE LIVING IN METRO DECREASING FROM APPROXIMATELY 80% TO 76% OF THE TOTAL POPULATION. BY THE YEAR 2001, A FURTHER INCREASE IN POPULATION IN THE THREE REGIONS OF APPROXIMATELY 500,000 IS EXPECTED WITH THE PERCENTAGE RESIDING IN METRO DECREASING TO 66%. SINCE ON AVERAGE WITHIN THE METROPOLITAN AREA, EACH MAN, WOMAN AND CHILD GENERATES APPROXIMATELY 1 TONNE OF REFUSE PER ANNUM, THE OVERALL RATE OF GENERATION CAN BE EXPECTED TO INCREASE BY APPROXIMATELY 500,000 TONNES PER YEAR OVER THAT PERIOD. THIS IS ILLUSTRATED BY THE PIE CHARTS ON PAGE 5.

SIMILARLY, EMPLOYMENT IN METRO, YORK AND DURHAM INCREASED BY 50,000 JOBS BETWEEN 1981 AND 1986 WITH THE NUMBER OF JOBS WITHIN METRO DECREASING FROM 86 TO 81 PER CENT. OF THE TOTAL. BY THE YEAR 2001 A FURTHER 350,000 JOBS ARE EXPECTED TO BE CREATED WITHIN THE THREE REGIONS WITH THE PERCENTAGE WITHIN METRO DECREASING TO 77 PER CENT. THIS IS ILLUSTRATED BY THE PIE CHARTS ON PAGE 6.

ANNUAL TOTALS OF SOLID WASTE MANAGED AT METROPOLITAN TORONTO FACILITIES



SOURCE: METROPOLITAN TORONTO WORKS DEPARTMENT, SOLID WASTE
MANAGEMENT DIVISION ANNUAL REPORTS

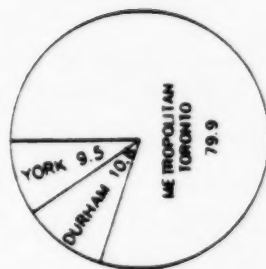
ACTUAL AND PROJECTED POPULATION FOR METROPOLITAN TORONTO AND

REGIONS OF DURHAM AND YORK

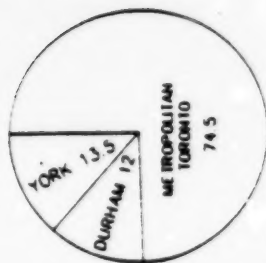
ACTUAL



1971
2,428,940 (100%)



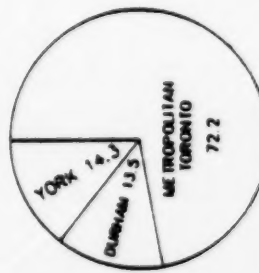
1981
2,668,072 (100%)



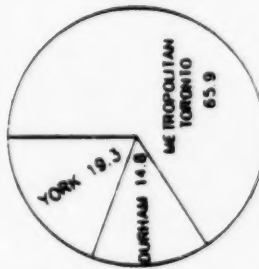
1987
2,852,193 (100%)

TOTAL STUDY
AREA
POPULATION

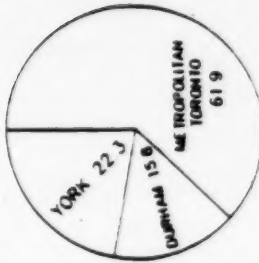
PROJECTED



1981
3,027,443 (100%)



2001
3,319,587 (100%)



2011
3,542,013 (100%)

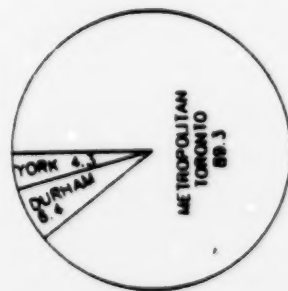
TOTAL STUDY
AREA
POPULATION

SOURCE : METROPOLITAN TORONTO PLANNING DEPARTMENT (1986)
YORK REGION PLANNING DEPARTMENT (1986)
DURHAM REGION PLANNING DEPARTMENT (1987)

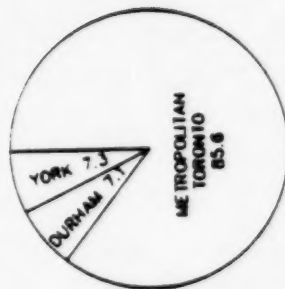
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ACTUAL AND PROJECTED EMPLOYMENT OF METROPOLITAN TORONTO AND REGIONS OF DURHAM AND YORK

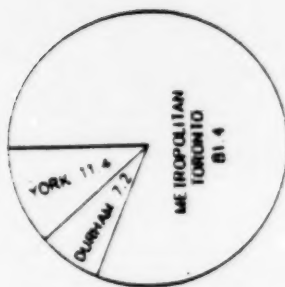
ACTUAL



1971
1,113,375 (100%)

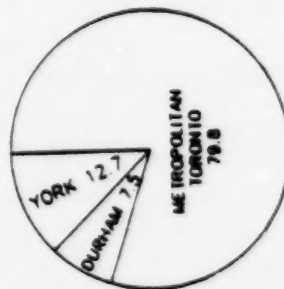


1981
1,449,105 (100%)

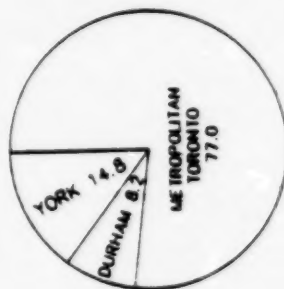


1987
1,567,521 (100%)

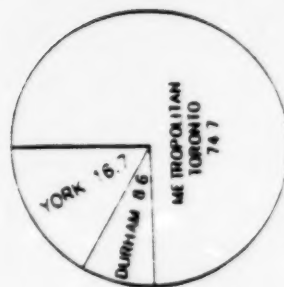
PROJECTED



1991
1,676,916 (100%)



2001
1,846,394 (100%)



2011
1,987,736 (100%)

TOTAL STUDY
AREA
EMPLOYMENT

TOTAL STUDY
AREA
EMPLOYMENT

SOURCE : METROPOLITAN TORONTO PLANNING DEPARTMENT (1986)
YORK REGION PLANNING DEPARTMENT (1987)

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THERE HAS ALSO BEEN CONSIDERABLE IMPROVEMENT IN THE OVERALL ECONOMIC CLIMATE OF THE AREA AND ALTHOUGH IT CANNOT BE ACCURATELY QUANTIFIED, THE INCREASE IN CONSUMER SPENDING AND THE DOLLAR VALUE OF SALES TRANSLATES INTO INCREASED INDUSTRIAL/COMMERCIAL PRODUCTION AND AS A RESULT INCREASED WASTE GENERATION.

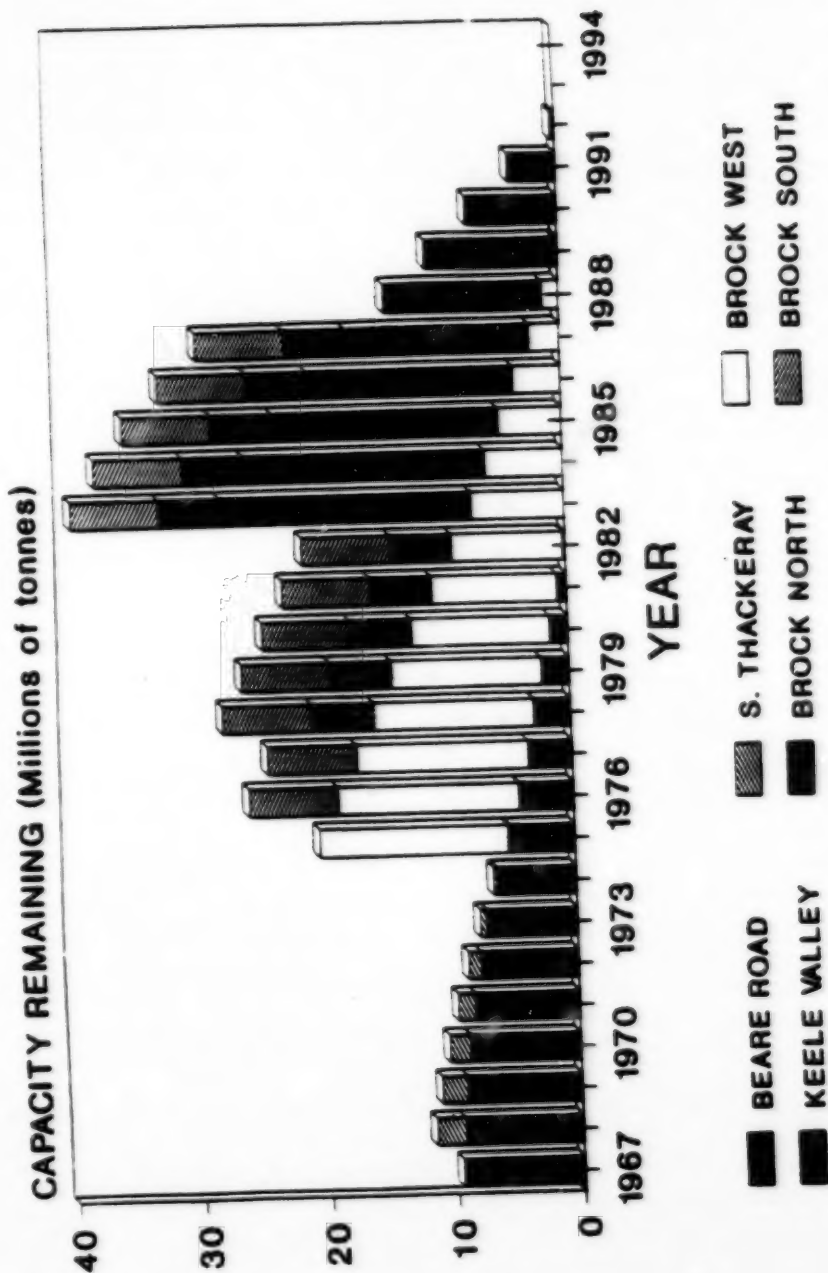
AT THE SAME TIME THAT METRO WAS BEING FACED WITH TREMENDOUS INCREASES IN ANNUAL TONNAGE, IT FOUND ITSELF IN A SITUATION WHERE ITS APPROVED REMAINING LANDFILL CAPACITY WAS REDUCED BY APPROXIMATELY 50 PER CENT.

THE GRAPH ON PAGE 8 TRACES THE INVENTORY OF APPROVED REMAINING LANDFILL CAPACITY HELD BY METROPOLITAN TORONTO SINCE 1967. TWO SITES, THE BROCK NORTH AND BROCK SOUTH SITES IN THE REGION OF DURHAM, WITH A COMBINED TOTAL DISPOSAL CAPACITY OF 12 MILLION TONNES, HAD BEEN APPROVED UNDER A PUBLIC HEARING PROCESS AND CERTIFICATES OF APPROVAL ISSUED IN THE MID 1970'S. AS WELL, METRO WAS PARTY TO AN AGREEMENT WITH THE REGION OF DURHAM, AGREEING TO JOINT USE OF THOSE SITES UPON COMPLETION OF THE BROCK WEST SITE, WHICH IS PROJECTED TO CLOSE IN MID 1990. AS SUCH WE HAD ALWAYS CONSIDERED THESE SITES TO REPRESENT A SECURE RESERVE CAPACITY, WHICH IN 1985 (WHEN WE BEGAN THE PROCESS OF UPDATING THE MASTER PLAN) WAS CONSIDERED TO BE SUFFICIENT TO SEE US THROUGH THE INTERIM PERIOD OF MASTER PLAN PREPARATION PRIOR TO APPROVAL OF ADDITIONAL DISPOSAL CAPACITY.

UNTIL THAT TIME, ALL WASTE MANAGEMENT SYSTEM PLANNING INCLUDING THE NEED FOR ADDITIONAL DISPOSAL CAPACITY HAD BEEN PREDICATED UPON THE USE OF THE BROCK NORTH AND BROCK SOUTH SITES WHICH HAD BEEN FIRST IDENTIFIED AS DISPOSAL SITES IN OUR 1967 MASTER PLAN AND RE-AFFIRMED FOR USE IN SUBSEQUENT MASTER PLAN UPDATES IN 1976 AND 1980 AND IN AGREEMENTS WITH THE REGION OF DURHAM DATED 1970 AND 1978.

HOWEVER, IN 1987 WE WERE ADVISED BY THE METROPOLITAN SOLICITOR AND OUTSIDE LEGAL COUNSEL RETAINED BY THE CORPORATION, THAT THE EXISTING CERTIFICATES FOR THE BROCK NORTH & SOUTH SITES WERE INVALID AND THAT THE SITES

RECORD OF LANDFILL CAPACITY REMAINING AT METROPOLITAN TORONTO'S LANDFILL SITES (As of the end of each year)



COULD NOT BE USED WITHOUT FULL HEARINGS UNDER THE ENVIRONMENTAL ASSESSMENT ACTS.

AS WE PURSUED THE GATHERING OF INFORMATION NECESSARY FOR AN APPLICATION UNDER THE EPA OR EAA AT THE BROCK SOUTH SITE, THERE AROSE SOME DOUBT HOW AN ENGINEERED LANDFILL SITE MEETING CURRENT GUIDELINES COULD BE ULTIMATELY APPROVED.

IT WAS DEEMED PRUDENT TO HOLD THE APPLICATIONS FOR THE BROCK SOUTH SITE IN ABEYANCE AND DETERMINE IF AN ALTERNATIVE SITE COULD BE FOUND POSSESSING BETTER NATURAL ATTENUATING CHARACTERISTICS. THE SEARCH, TO FIND AN ALTERNATE INTERIM SITE WAS INITIATED IN DECEMBER, 1987.

IN LIGHT OF THE ABOVE, ON JUNE 10, 1988 METRO COUNCIL AUTHORIZED THE METRO WORKS DEPARTMENT TO SEEK AN EXEMPTION FROM THE REQUIREMENTS OF THE ENVIRONMENTAL ASSESSMENT ACT (EA ACT) FOR THE DEVELOPMENT OF AN INTERIM LANDFILL SITE TO SERVE EASTERN METROPOLITAN TORONTO AND THE REGION OF DURHAM FOR A PERIOD OF FIVE YEARS WHILE THE SEARCH FOR ADDITIONAL LANDFILL CAPACITY, AND THE EVALUATION OF ALTERNATE WASTE MANAGEMENT TECHNOLOGIES AND THE IMMEDIATE IMPLEMENTATION OF RECYCLING PROGRAMS WAS UNDERWAY THROUGH THE MASTER PLAN PROCESS. AT THAT TIME A SPECIFIC APPLICATION FOR THE INTERIM SITE WAS ENVISAGED BY NOVEMBER, 1988.

SEVEN INTERIM SITES WERE INITIALLY IDENTIFIED, THROUGH THE INTERIM SEARCH PROCESS OF WHICH THREE, THE M2 AND M3 SITES IN SCARBOROUGH, IN METROPOLITAN TORONTO AND THE N1 SITE IN NEWCASTLE IN THE REGION OF DURHAM WERE CONSIDERED TO BE CAPABLE EITHER ALONE OR IN COMBINATION, OF ACCOMMODATING THE WASTE DISPOSAL NEEDS OF METROPOLITAN TORONTO IN THE SHORT TERM, AND UNTIL SUCH TIME AS A LONG-TERM SITE WAS IDENTIFIED THROUGH THE SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN (SWEAP) PROCESS. THE M3 SITE IN SCARBOROUGH WAS RECOMMENDED FOR DEVELOPMENT BY THE METROPOLITAN WORKS DEPARTMENT IN AUGUST 1988, BUT REJECTED BY METROPOLITAN COUNCIL IN SEPTEMBER, 1988. AT

THAT TIME, COUNCIL INSTRUCTED THAT WE PROCEED WITH A MORE DETAILED INVESTIGATION OF THE N1 SITE IN NEWCASTLE AND FURTHER DIRECTED THAT WE ALSO EVALUATE THE PROBABILITY OF EXTENDING THE KEELE VALLEY AND BROCK WEST LANDFILL SITES.

HOWEVER, FURTHER EVALUATION AND EVENTUAL SELECTION OF AN INTERIM LANDFILL SITE WAS DELAYED AS A RESULT OF THE DISCUSSIONS WITH THE PROVINCE AND THE FIVE GREATER TORONTO AREA (G.T.A.) REGIONAL MUNICIPALITIES WITH RESPECT TO A CO-OPERATIVE AND CO-ORDINATED SEARCH FOR INTERIM LANDFILL CAPACITY AND AN ESTABLISHMENT OF A LONG TERM WASTE MANAGEMENT STRATEGY FOR THE ENTIRE GREATER TORONTO AREA.

THE TOTAL PROJECTED SHORTFALL WITHIN THE GTA AREA IS PROJECTED TO BE APPROXIMATELY 15 M TONNES OVER THE PERIOD JANUARY 1, 1992 TO DECEMBER 31, 1996.

UNDER THE GTA PROCESS EACH OF THE FIVE PARTICIPATING REGIONS IS TO NOMINATE A SITE OR SITES WITHIN ITS JURISDICTION OR BEYOND THE GTA AREA WHERE AN AGREEMENT CAN BE REACHED WITH A WILLING HOST COMMUNITY. AFTER SITES HAVE BEEN NOMINATED BY EACH OF THE FIVE REGIONS THE SITES MUST THEN BE ENDORSED BY THE SOLID WASTE INTERIM STEERING COMMITTEE (SWISC) WHICH IS COMPRISED OF THE CHAIRMAN AND ONE OTHER ELECTED OFFICIAL OF EACH OF THE FIVE REGIONS AS WELL AS THE DEPUTY MINISTER OF THE MINISTRY OF THE ENVIRONMENT AND THE DEPUTY MINISTER FOR THE OFFICE OF THE GREATER TORONTO AREA.

AFTER ENDORSEMENT BY SWISC, THE MINISTER OF THE ENVIRONMENT WILL ISSUE, FOR EACH OF THE SITES, AN EXEMPTION FROM THE REQUIREMENTS OF THE ENVIRONMENTAL ASSESSMENT ACT AND APPROVAL OF THE SITES WILL PROCEED UNDER THE ENVIRONMENTAL PROTECTION ACT.

AT THE PRESENT TIME THE FOLLOWING SITES HAVE BEEN NOMINATED:

<u>SITE</u>	<u>NOMINATING REGION</u>
P1	DURHAM
VIB	PEEL
MILTON	HALTON
M2	METRO
KEELE VALLEY	METRO

<u>SITE</u>	<u>NOMINATING REGION</u>
ADAMS MINE SITE	METRO
S. OF KIRKLAND LAKE	
MARMORA	METRO
UHTOFF	METRO
KAPUSKASING (EPW)	METRO

IN THE CASE OF THE KEELE VALLEY SITE, APPROVAL OF THE TOWN OF VAUGHAN AND THE REGION OF YORK ARE REQUIRED AS A RESULT OF EXISTING LEGAL AGREEMENTS WITH BOTH PARTIES PERTAINING TO THE SITE. WITH RESPECT TO THE MARMORA, KIRKLAND LAKE, AND UHTOFF SITES, AGREEMENTS FOR PURCHASE OR LEASE OF THE SUBJECT PROPERTY MUST BE FINALIZED WITH THE OWNERS PRIOR TO COMMENCEMENT OF SITE INVESTIGATION.

UNDER THE GTA RULES THE SITE MUST ALSO BE LOCATED IN A WILLING HOST COMMUNITY WITH THE HOST COMMUNITY DEFINED AS BEING THE COMMUNITY WITH JURISDICTION OVER SOLID WASTE MANAGEMENT AND DISPOSAL. THEREFORE, FOR SITES LOCATED WITHIN THE GTA AREA THE NOMINATING REGION IS DEEMED TO BE THE "WILLING" HOST AND THE APPROVAL OF THE LOCAL MUNICIPALITY IS NOT REQUIRED. WITH RESPECT TO THE REMOTE SITES NOMINATED BY METROPOLITAN TORONTO RESOLUTIONS PASSED BY THE COUNCILS OF THE LOCAL TOWNSHIPS WHO HAVE

AUTHORITY FOR SOLID WASTE MANAGEMENT (SWM) INDICATING SUPPORT FOR THE SITES WILL BE REQUIRED. AT PRESENT ONLY THE KIRKLAND LAKE SITE SATISFIES THAT CONDITION. HOWEVER, WE HAVE INITIATED CONTACT WITH THE COUNCILS AND THE PUBLIC IN THESE POTENTIAL HOST COMMUNITIES AND WILL BE CONTINUING DISCUSSIONS WITH THEM IN CONJUNCTION WITH INVESTIGATION OF THE SITES.

THE SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN

I HAVE OUTLINED THE CURRENT SITUATION WITH RESPECT TO THE SHORT TERM CRISIS IN SOLID WASTE MANAGEMENT IN METROPOLITAN TORONTO AND THE ENTIRE GTA AREA. NOW I WOULD LIKE TO TURN OUR ATTENTION TO THE PROCESS WHICH IS IN PROGRESS TO DEAL WITH THE SITUATION OVER THE LONG TERM. THE PROCESS BEGAN IN 1985. AT THAT TIME, FIVE YEARS HAD ELAPSED SINCE COMPLETION OF METRO'S LAST MASTER PLAN AND CONSIDERATION WAS BEING GIVEN TO UPDATING THE PLAN.

COINCIDENTALLY, AT THAT TIME THE REGION OF DURHAM HAD JUST COMPLETED ITS OWN SOLID WASTE MANAGEMENT STUDY, ONE OF THE RECOMMENDATIONS OF WHICH WAS THAT THE REGION PURSUE LONG TERM USE OF A METROPOLITAN TORONTO DISPOSAL FACILITY.

SUBSEQUENTLY IN FEBRUARY 1986, METRO COUNCIL APPROVED INITIATION OF A JOINT LONG TERM LANDFILL SITE SEARCH WITH REGION OF DURHAM SIMULTANEOUSLY WITH AN UPDATING OF THE METROPOLITAN TORONTO'S MASTER PLAN.

DURING SEPTEMBER 1986 ON THE ADVICE OF THE METROPOLITAN SOLICITOR THE JOINT LANDFILL SITE SEARCH WAS SUSPENDED BY METRO COUNCIL UNTIL THE NEED AND RATIONALE FOR A LANDFILL SITE COULD BE DOCUMENTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EA ACT AND CONSULTANTS WERE ENGAGED TO CARRY OUT AN APPRAISAL STUDY, SETTING OUT THE STRATEGY TO BE FOLLOWED BY METRO IN CARRYING OUT A SOLID WASTE

MANAGEMENT MASTER PLAN UNDER THE ENVIRONMENTAL ASSESSMENT ACT. THIS STUDY ALSO INCLUDED A SEPARATE REPORT JUSTIFYING THE NEED FOR SOME LANDFILL CAPACITY AS AN ESSENTIAL COMPONENT OF ANY PLAN.

THE APPRAISAL STUDY WAS RECEIVED IN DECEMBER, 1986, AND ANTICIPATED A PERIOD OF FIVE YEARS OF WORK AND AT A COST OF \$11,000,000.00 (1987\$) TO COMPLETE THE MASTER PLAN. FACED WITH THIS ESTIMATED COST AND RECOGNIZING THAT IT WAS TIME TO CHANGE FROM THE REFUSE DISPOSAL PERSPECTIVE TO THAT OF MANAGING SOLID WASTE, IT WAS DECIDED TO COMBINE CONSULTANTS WITH EXISTING AND NEW STAFF TO CARRY OUT THE MASTER PLAN PROJECT.

THIS HAS ALLOWED FOR THE RAPID IMPLEMENTATION OF RECOMMENDATIONS AS THEY DEVELOP WHILE PROVIDING A NUCLEUS OF NEW STAFF TO DELIVER THE NEW PROGRAMS ARISING FROM THE PLAN. WORK ON THE SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN, (SWEAP) BEGAN IN MAY, 1987.

THE SWEAP PROCESS WAS ORIGINALLY INTENDED TO BE CARRIED OUT BY METROPOLITAN TORONTO IN ASSOCIATION WITH THE REGIONAL MUNICIPALITIES OF DURHAM AND YORK WITH A VIEW TO ESTABLISHING A SOLID WASTE MANAGEMENT PLAN NOT JUST FOR METROPOLITAN TORONTO, BUT FOR THE THREE REGIONAL MUNICIPALITIES.

HOWEVER, ON OCTOBER 19 AND 25, 1988, THE REGIONAL MUNICIPALITY OF DURHAM ADOPTED A RESOLUTION THAT THE REGION OF DURHAM WOULD NOT ACCEPT METROPOLITAN TORONTO'S REFUSE ANYWHERE IN THE REGION OF DURHAM AFTER THE BROCK WEST SITE IS CLOSED AND THAT THEIR PREVIOUS RESOLUTION TO ASSIST METROPOLITAN TORONTO IN THE IDENTIFICATION AND DEVELOPMENT OF A JOINT LONG TERM DISPOSAL SITE WITHIN REGIONAL BOUNDARIES, BE RESCINDED. THE REGION HAS SINCE ENGAGED ITS OWN CONSULTANTS TO CARRY OUT A WASTE MANAGEMENT STUDY INCLUDING THE IDENTIFICATION OF LONG TERM LANDFILL CAPACITY.

AS WELL, THE REGIONAL MUNICIPALITY OF YORK ALSO INITIATED AND COMPLETED ITS OWN WASTE MANAGEMENT STUDY WHICH AMONG OTHER ISSUES ADDRESSED THE QUESTION OF WHETHER THE REGION SHOULD WITHDRAW COMPLETELY FROM SWEAP OR CONTINUE. WITH RESPECT TO SWEAP, THE YORK STUDY RECOMMENDED THAT "THE REGION SHOULD CONTINUE TO MONITOR SWEAP ACTIVITIES AND TO PARTICIPATE ON SWEAP COMMITTEES AND THAT THE REGION SHOULD UNDERTAKE DETAILED TECHNICAL

REVIEW OF ALL PROPOSALS ADVANCED BY SWEAP THAT INCLUDES MANAGEMENT OF SOME OR ALL OF YORK REGIONS WASTES. KEY CRITERIA TO BE APPLIED IN ACCEPTING OR REJECTING SWEAP PROPOSALS SHOULD INCLUDE THE ABILITY OF SWEAP PROPOSALS TO PROVIDE FOR THE EFFICIENT AND EFFECTIVE DAY TO DAY MANAGEMENT OF REMAINING WASTES GENERATED IN YORK REGION AND COMPARISON OF MATERIAL, SOCIAL AND ECONOMIC COSTS OF SWEAP PROPOSALS TO YORK REGION WITH SIMILAR COSTS TO THE REGION OF ESTABLISHING A REGIONAL SOLID WASTE SYSTEM".

AT PRESENT, REPRESENTATIVES FROM BOTH THE REGIONS OF YORK AND THE REGION OF DURHAM ARE REPRESENTED ON THE SWEAP STEERING COMMITTEE IN AN OBSERVATORY CAPACITY ONLY. THE TERMS OF REFERENCE FOR SWEAP HAVE BEEN AMENDED TO INDICATE THAT SWEAP IS PLANNING FOR THE MANAGEMENT OF WASTE FROM METROPOLITAN TORONTO, INCLUDING ANY PRESENT OBLIGATIONS TO MANAGE WASTE FROM OTHER JURISDICTIONS.

AS IS THE CASE WITH OTHER MASTER PLANS, THE SWEAP STUDY WILL IDENTIFY THE MOST ACCEPTABLE SYSTEM FOR THE HANDLING, REDUCTION AND RECYCLING, TRANSPORTATION, PROCESSING AND DISPOSAL OF SOLID WASTE GENERATED WITHIN THE AREA OF STUDY. IT WILL EXAMINE WASTE REDUCTION, SOURCE SEPARATION, AND MATERIAL AND ENERGY RECOVERY AS WELL AS A COMPREHENSIVE REVIEW OF ALL WASTE MANAGEMENT OPTIONS, INTEGRATION WITH OTHER SOLID WASTE MANAGEMENT PLANS AND WILL EMPLOY AN EFFECTIVE PUBLIC PARTICIPATION PROCESS THROUGHOUT THE STUDY PERIOD.

METROPOLITAN TORONTO IS NOW FINALIZING A REPORT ENTITLED "TOWARDS A SOLID WASTE MANAGEMENT MASTER PLAN A STATUS REPORT ON METROPOLITAN TORONTO'S PLANNING PROCESS" WHICH OUTLINES THREE ALTERNATIVE SOLID WASTE MANAGEMENT SYSTEM SCENARIOS FOR METROPOLITAN TORONTO. THESE ALTERNATIVE SYSTEMS WILL BE UNDERGOING PUBLIC AND AGENCY REVIEWS PRIOR TO SELECTION OF THE PREFERRED SYSTEMS OPTION WHICH SHOULD OCCUR PRIOR TO OR DURING THE SUMMER 1990. THESE ALTERNATIVE SYSTEMS CONFIGURATIONS ARE ILLUSTRATED BY THE PIE CHARTS ON PAGE 16.

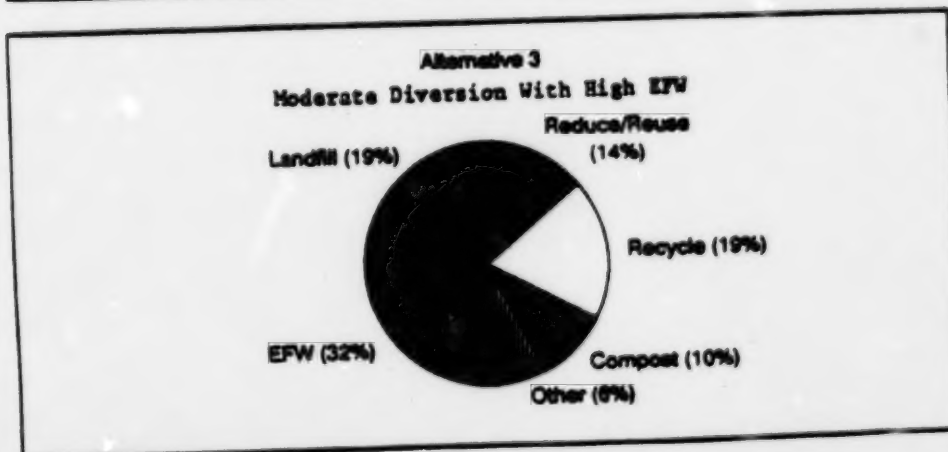
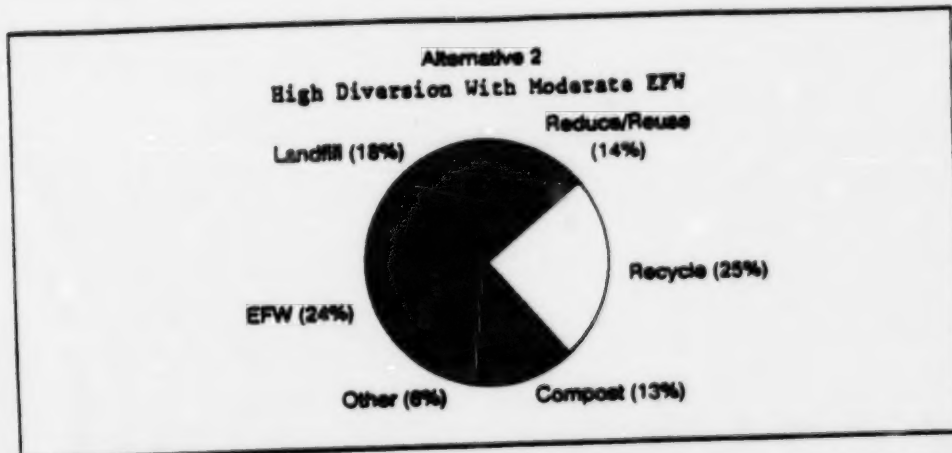
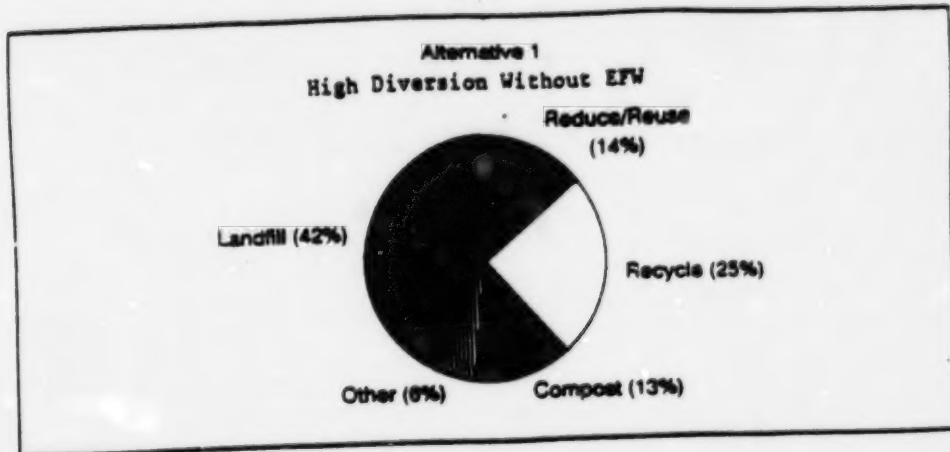
ONE OF THE UNIQUE ASPECTS OF THE SWEAP PROCESS IS ITS COMPREHENSIVE MULTI-TIERED PUBLIC PARTICIPATION PROGRAM.

THE APEX OF THE STRUCTURE IS THE 15 MEMBER MULTI-STAKEHOLDER COMMITTEE (MSC) WHOSE MEMBERS ARE SELF SELECTED, THREE FROM EACH OF FIVE SUPPORTING ADVISORY CAUCUSES. THESE CAUCUSES REPRESENT THE GENERAL PUBLIC, THE WASTE MANAGEMENT INDUSTRY, POLITICIANS, GOVERNMENTAL AGENCIES AND ENVIRONMENTAL ORGANIZATIONS.

THE MULTISTAKEHOLDERS COMMITTEE DISCUSSES ISSUES RAISED BY THE ADVISORY CAUCUSES AND ATTEMPTS TO ESTABLISH AREAS OF AGREEMENT AND NARROW AREAS OF DIFFERENCE AMONG THE VARIOUS PUBLIC SECTORS. THE MSC THEN DEVELOPS FORMAL RECOMMENDATIONS TO PRESENT TO THE SWEAP STEERING COMMITTEE. IN ADDITION TO THIS CORE PROGRAM SPECIAL AD HOC TASK FORCES AND LOCAL LIAISON COMMITTEES ARE ESTABLISHED AS THE NEED ARISES.

IN ADDITION TO THE SWEAP MASTER PLANNING PROCESS, AND TO THE PLANNING PROCESS UNDERTAKEN IN THE NEIGHBOURING REGIONS, A COMPREHENSIVE AND COLLABORATIVE APPROACH TO MANAGING THE SOLID WASTE GENERATED IN THE FIVE REGIONS OF THE GREATER TORONTO AREA (G.T.A.) DURHAM, HALTON, PEEL, YORK AND METROPOLITAN TORONTO WAS RECENTLY UNVEILED BY THE FIVE REGIONAL GOVERNMENT CHAIRMEN ON MARCH 14, 1989. THE PLAN WAS DEVELOPED BY THE CHAIRMEN IN CONSULTATION WITH PROVINCIAL OFFICIALS OVER A SERIES OF MEETINGS IN THE FALL OF 1988.

System Targets For Year 2000



SOME OF THE MAIN GOALS OUTLINED IN THE PROPOSAL INCLUDE THE FOLLOWING:

- TO FULFILL PROVINCIAL TARGETS FOR WASTE DIVERSION OF 25% BY 1992 AND 50% BY 2000.
- TO CREATE A STATE-OF-THE-ART SYSTEM FOR PROCESSING SOLID WASTE;
- TO MAXIMIZE INDUSTRIAL DEVELOPMENT OPPORTUNITIES FOR HOST COMMUNITIES;
- TO CONSTRUCT AN INNOVATIVE FRAMEWORK FOR NEW RESEARCH AND DEVELOPMENT IN THE AREA OF SOLID WASTE REDUCTION, REUSE, RECYCLING AND RECOVERY;
- TO REDUCE ENVIRONMENTAL DEGRADATION AND THE REAL COSTS ASSOCIATED WITH CONVENTIONAL WASTE MANAGEMENT SYSTEMS;
- TO CREATE A WASTE MANAGEMENT STRUCTURE THAT WILL ALLOW MAXIMUM COLLABORATIVE EFFORTS BETWEEN MUNICIPAL, REGIONAL AND PROVINCIAL AUTHORITIES AND BETWEEN THE PUBLIC AND PRIVATE SECTORS.

THE PLAN CALLS FOR THE FORMATION OF A GREATER TORONTO AREA (G.T.A.) STEERING COMMITTEE TO PUT OUT TENDERS AND AWARD A CONTRACT FOR DEVELOPMENT AND OPERATION OF THE COMPREHENSIVE, LONG-TERM WASTE MANAGEMENT SYSTEM, STARTING IN 1992.

IN THAT THE NEW SYSTEM IS NOT ANTICIPATED TO BE IN PLACE BY 1996, AND CURRENT G.T.A. LANDFILL CAPACITY WILL BE EXHAUSTED BY 1993, THE PLAN PROPOSES THE IDENTIFICATION OF ENVIRONMENTALLY SOUND, STAND-BY CONTINGENCY SITES FOR POSSIBLE USE UNTIL THE MAIN SYSTEM IS OPERATIONAL.

IT IS NOT CLEAR AT THIS POINT HOW THE PROPOSED G.T.A. AUTHORITY WILL INTERFACE WITH THE SWEAP PROCESS AND PLANNING PROCESSES COMPLETED AND/OR UNDERWAY IN THE OTHER REGIONS. HOWEVER, IN CONSIDERING AND ENDORSING THE G.T.A. PROPOSAL METROPOLITAN WORKS COMMITTEE ALSO RECOMMENDED THAT METRO CONTINUE ITS SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN, PUBLIC EDUCATION AND PUBLIC PARTICIPATION PROGRAMS, PREPARATION OF METROPOLITAN TORONTO MASTER PLAN AND THAT IT CO-ORDINATE THE SOLID WASTE ENVIRONMENTAL ASSESSMENT PLAN AND THE GREATER TORONTO AREA SOLID WASTE MANAGEMENT INITIATIVES UNTIL THE G.T.A. AUTHORITY ASSUMES RESPONSIBILITY FOR, AND PRODUCES AN APPROVED MULTI-REGIONAL PLAN OR PROVIDES APPROVED FACILITIES AND DATES OF AVAILABILITY THAT ARE SATISFACTORY TO METROPOLITAN COUNCIL.

THIS DECISION WAS ADVOCATED BY THE METROPOLITAN SOLICITOR WHO ADVISED THAT TO ENDORSE THE STEPS INVOLVED IN IMPLEMENTATION OF THE CHAIRMAN'S PROPOSAL, WITHOUT AN EXAMINATION OF ALTERNATIVES THROUGH COMPLETION OF METROPOLITAN TORONTO'S SWEAP PROGRAM WOULD BE INCONSISTENT WITH THE PLANNING PROCESS WHICH HAS BEEN ENUNCIATED BY THE MINISTRY OF THE ENVIRONMENT IN REGARD TO THE ENVIRONMENTAL ASSESSMENT ACT AND INCONSISTENT WITH THE PLANNING PROCESS AS DESCRIBED IN PREVIOUS JOINT BOARD DECISIONS. AS SUCH THE ACTUAL ENVIRONMENTAL ASSESSMENT THAT WOULD EMERGE FROM SUCH A PROPOSAL, IF IT WERE DONE OUTSIDE OF SWEAP, WOULD BE DEFICIENT.

BECAUSE OF THE LEVEL AND DETAIL OF STUDY REQUIRED TO PREPARE AND SUPPORT THE TYPE OF MASTER PLAN SUBMISSION CONTEMPLATED THROUGH SWEAP OR THE CHAIRMAN'S PROPOSAL, AND THE APPROVALS PROCESS WHICH IT IS EVENTUALLY SUBJECTED TO, APPROVAL OF THE PLAN AND IMPLEMENTATION OF CERTAIN COMPONENTS OR FACILITIES MAY NOT OCCUR FOR SEVERAL YEARS. BOTH PROCESSES ANTICIPATE THE LONG TERM SYSTEM BEING OPERATIONAL BY 1996.

THE NEED FOR IMMEDIATE ACTION

HOWEVER, SWEAP IS ALSO AN ACTION PLAN. ENVIRONMENTAL CONCERNS HAVE BECOME A MAJOR ISSUE IN TODAY'S SOCIETY AND EFFECTIVE WASTE MANAGEMENT TECHNIQUES TO DEAL WITH THE EVER INCREASING QUANTITIES OF WASTE ARE REQUIRED IMMEDIATELY, AND CANNOT AWAIT COMPLETION OF THE MASTER PLAN. FROM AN ENVIRONMENTAL AND PUBLIC PERSPECTIVE, THE 4 R'S, REDUCTION, RE-USE, RECYCLING AND RECOVERY ARE CONSIDERED TO BE THE MOST ACCEPTABLE METHODS OF WASTE MANAGEMENT.

WASTE REDUCTION, THE PREVENTION OF WASTE AT THE SOURCE OF GENERATION, IS THE FIRST PRIORITY. PACKAGING IS A MAJOR CONTRIBUTOR TO THE LARGE QUANTITIES OF WASTE REQUIRING DISPOSAL. IT IS ESTIMATED THAT ALMOST ONE-THIRD OF METRO'S MUNICIPAL WASTE STREAM IS COMPRISED OF PACKAGING AND CONTAINERS. A RECENT REPORT PREPARED FOR THE STATE OF NEW YORK INDICATES THAT THE PER CAPITA GENERATION OF PACKAGING WASTE IN NEW YORK IS EXPECTED TO INCREASE 25% (FROM 720 TO 900) POUNDS PER CAPITAL FROM 1987 TO 1997. TO REDUCE THE AMOUNT OF SOLID WASTE BEING GENERATED, FEDERAL AND/OR PROVINCIAL LEGISLATIVE MEASURES WILL BE REQUIRED WHICH WILL IMPOSE BASIC CHANGES ON THE WAY MATERIALS ARE MANUFACTURED AND SOLD. EXAMPLES INCLUDE BANNING FAST FOOD OUTLETS FROM USING NON-RECYCLABLE, DISPOSABLE CONTAINERS AND REQUIRING THEM TO SERVE THEIR PRODUCT IN EITHER PACKAGES THAT CAN BE RE-USED, RECYCLED OR ARE BIODEGRADABLE.

THE CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW AND POLICY RECENTLY COMPLETED A STUDY FOR METROPOLITAN TORONTO WITH RESPECT TO LEGISLATIVE INITIATIVES TO IMPLEMENT REDUCTION PROGRAMS WHICH INCLUDES RECOMMENDATIONS FOR ACTION AT THE MUNICIPAL, PROVINCIAL AND FEDERAL LEVELS. A CONFERENCE SPONSORED JOINTLY BY THE CANADIAN INSTITUTE FOR ENVIRONMENTAL LAW & POLICY AND METROPOLITAN TORONTO WORKS DEPARTMENT WAS HELD IN TORONTO ON DECEMBER 5, 1989 TO

DISSEMINATE THE REPORT. ACTION ON A NUMBER OF THE RECOMMENDATIONS CONTAINED IN THE REPORT HAS EITHER BEGUN OR WILL COMMENCE IN 1990.

RE-USE REFERS TO USING MATERIALS AGAIN IN THEIR ORIGINAL FORM RATHER THAN DISPOSING OF THEM. EXAMPLES INCLUDE DONATING USED CLOTHING AND FURNITURE TO CHARITABLE ORGANIZATIONS, AND USING REFILLABLE BOTTLES, ETC..

GREATER USE IS BEING MADE OF PUBLIC EDUCATION PROGRAMS THAT PROMOTE WASTE REDUCTION AND RE-USE. IN JANUARY 1989, METROPOLITAN COUNCIL APPROVED IN PRINCIPLE A 3.1 MILLION DOLLAR PUBLIC EDUCATION PROGRAM. PART OF THIS PROGRAM WILL FOCUS ON MAKING CONSUMERS MORE AWARE OF OVERPACKAGING AND ATTEMPT TO CHANGE CONSUMER PURCHASING BEHAVIOUR, FOR EXAMPLE, BUYING CLOTH DIAPERS INSTEAD OF DISPOSABLES, REPLACEABLE RAZOR BLADES AS OPPOSED TO DISPOSABLE ONES, AND PURCHASING FOOD IN BULK INSTEAD OF INDIVIDUALLY-WRAPPED PORTION PACKS.

CHANGES IN PURCHASING BEHAVIOUR CAN ALSO BE EXTENDED TO THE LARGER CONSUMERS. FOR EXAMPLE, ON FEBRUARY 3, 1987 THE METROPOLITAN CORPORATION ADOPTED A POSITIVE PROCUREMENT POLICY FOR RE-REFINED WASTE OIL IF IT MEETS GRADE SPECIFICATIONS AND IS NO GREATER THAN FIVE PER CENT. OF THE PRICE OF OIL MANUFACTURED FROM VIRGIN RESOURCES.

METROPOLITAN WORKS AND PURCHASING DEPARTMENTS ARE CURRENTLY TAKING A LEAD ROLE IN ESTABLISHING AND CO-ORDINATING AN AD-HOC COMMITTEE ON POSITIVE PROCUREMENT POLICIES WHICH INCLUDES REPRESENTATIVES FROM LOCAL AND REGIONAL MUNICIPALITY PURCHASING DEPARTMENTS AS WELL AS THE PROVINCE OF ONTARIO AND GOVERNMENT OF CANADA.

WHILE THE LOGIC OF REDUCTION AND RE-USE IS COMPELLING, THERE ARE AS OF YET FEW PROVEN TOOLS, PARTICULARLY AT THE MUNICIPAL AND REGIONAL LEVEL, THAT HAVE EFFECTIVELY REDUCED THE QUANTITY OF WASTE REQUIRING DISPOSAL.

THE THIRD R, RECYCLING, IS WHERE SIGNIFICANT WASTE DIVERSION IS BEING ACHIEVED AT THE MUNICIPAL AND REGIONAL LEVELS. RECYCLING REFERS TO THE RECOVERY OF MATERIALS FROM THE WASTE STREAM FOR USE AS A REPLACEMENT FOR VIRGIN MATERIALS, WHEN MANUFACTURING NEW PRODUCTS.

IN THE PAST, MUNICIPAL RECYCLING IN METROPOLITAN TORONTO HAS NOT ACCOUNTED FOR A MAJOR DIVERSION OF WASTE FROM LANDFILL AND INCINERATION. HOWEVER, THIS SITUATION IS RAPIDLY CHANGING. IN 1988, APPROXIMATELY 45,000 METRIC TONNES OR 4.6 PER CENT. OF THE TOTAL MUNICIPAL WASTE GENERATED WAS RECYCLED. IN 1989, THIS AMOUNT INCREASED TO 8.5 PER CENT..

ON DECEMBER 16, 1988, THE METRO WORKS DEPARTMENT REPORT ENTITLED "WASTE REDUCTION AND RECYCLING PLAN" WAS PRESENTED TO METROPOLITAN WORKS COMMITTEE, WHICH SOUGHT AUTHORIZATION TO IMPLEMENT, REQUIRE, OR REQUEST 37 WASTE REDUCTION AND RECYCLING MEASURES IN CO-OPERATION WITH OUR AREA MUNICIPALITIES, AND TO INVITE THE CO-OPERATION OF THE ADJACENT REGIONS SERVED AND THE PRIVATE SECTOR, WITH A TARGET OF 30 PER CENT. REDUCTION IN TONNAGE BY THE YEAR 1990.

IN THE 37 ACTION STEPS PROPOSED, METROPOLITAN TORONTO HAS OUTLINED WHAT IT CAN DO, UNDER IT'S STATUTORY AUTHORITY, AND HAS REQUESTED THE CO-OPERATION OF THE MUNICIPALITIES, THE PROVINCE, AND THE FEDERAL GOVERNMENT, AS WELL AS THE COMMERCIAL AND INDUSTRIAL COMMUNITY, AND INDIVIDUAL CITIZENS TO IMPLEMENT MEASURES WHICH FALL UNDER THEIR CONTROL.

THE PROPOSED ACTION STEPS INCLUDE AN INCREASE IN DISPOSAL FEES, "BLUE BOX" COLLECTION FOR APARTMENTS AND COMMERCIAL ESTABLISHMENTS, FEDERAL AND PROVINCIAL LEGISLATION TO REDUCE PACKAGING, BANS ON RECEIPT OF MANY MATERIALS AT METRO LANDFILLS, AND THE CREATION OF NEW RECYCLING AND DISPOSAL FACILITIES FOR THESE MATERIALS.

MUCH OF THE BACKGROUND AND BASIS FOR THESE ACTION ITEMS HAS ORIGINATED FROM THE RECOMMENDATIONS PUT FORWARD

DURING THE SWEAP PROCESS AND ARE LARGELY POLICIES ENCOURAGING THE IMPLEMENTATION OF RECYCLING PROGRAMS IN METROPOLITAN TORONTO.

SINCE OCTOBER 11, 1985, METRO COUNCIL HAS HAD IN EFFECT, A RECYCLING DIVERSION CREDIT WHICH IS PAYABLE TO THE AREA MUNICIPALITIES FOR EACH AND EVERY TONNE REMOVED FROM THE WASTE STREAM, WHICH OTHERWISE WOULD HAVE BEEN DISPOSED AT THEIR LANDFILLS. THE CURRENT DIVERSION CREDIT IS \$20.00/TONNE AND HAS BEEN RECOMMENDED TO INCREASE TO \$27.00 PER TONNE EFFECTIVE MAY 1, 1990.

IN 1988 OVER \$450,000.00 WAS PAID TO METROPOLITAN AREA MUNICIPALITIES FOR DIVERTING WASTE. IN 1989, THIS AMOUNT INCREASED TO APPROXIMATELY \$585,000. THE DIVERSION CREDIT WAS ORIGINALLY TARGETED AT THE TRADITIONAL RECYCLABLE MATERIALS OF NEWSPAPERS, GLASS AND METAL CANS. HOWEVER, IT HAS BEEN EXTENDED TO OTHER MATERIALS, SUCH AS WHITE GOODS AND MUNICIPALLY COMPOSTED LEAVES. THE AMOUNT OF THE CREDIT IS REVIEWED ANNUALLY, TO ASSESS ITS EFFECT ON THE QUANTITIES OF MATERIAL RECYCLED.

ON MARCH 31, 1987, IN AN EFFORT TO ENCOURAGE IMPLEMENTATION OF MULTI-MATERIAL CURBSIDE PROGRAMS, METROPOLITAN COUNCIL APPROVED A "START-UP CONTRIBUTION PROGRAM" TO ASSIST THE MUNICIPALITIES IN THE INITIAL CAPITAL OUTLAY AS WELL AS AN OPERATING SUBSIDY TO COVER NET OPERATING COSTS INCURRED BY THE PROGRAMS. THE TOTAL ESTIMATED COST TO THE METROPOLITAN CORPORATION OF THE START-UP AND OPERATING SUBSIDY IS ESTIMATED AT UP TO APPROXIMATELY \$35 MILLION OVER THE INITIAL FIVE YEAR PERIOD.

APPROXIMATELY 1.5 MILLION RESIDENTS IN 450,000 SINGLE FAMILY HOMES ARE CURRENTLY SERVED BY THE "BLUE-BOX" PROGRAM, WHICH COLLECT NEWSPAPERS, GLASS CONTAINERS, ALUMINUM AND STEEL CANS, PLASTIC SOFT-DRINK CONTAINERS, RIGID PLASTIC BOTTLES AND JUGS AND CORRUGATED CARDBOARD. THIS PROGRAM RECOVERED APPROXIMATELY 55,000 TONNES OF WASTE MATERIALS IN 1989 FROM METROPOLITAN TORONTO.

THE PHASED-IN IMPLEMENTATION OF MULTI-MATERIAL RECYCLING IN APARTMENTS HAS ALSO BEGUN, AND METROPOLITAN COUNCIL HAS APPROVED A FUNDING PROGRAM SIMILAR TO THAT FOR THE RESIDENTIAL "BLUE-BOX" PROGRAM. APPROXIMATELY 50,000 APARTMENT UNITS ARE NOW ON-LINE.

METROPOLITAN TORONTO ALSO RECEIVES, TRANSPORTS AND MARKETS MATERIALS RECOVERED FROM THE BLUE-BOX PROGRAMS ON BEHALF OF THE AREA MUNICIPALITIES.

IN 1988, THE AREA MUNICIPALITIES OPERATED LEAF COMPOSTING PROGRAMS IN SELECTED COLLECTION AREAS. THE TOTAL 1988 COLLECTION WAS OVER 10,000 TONNES. OF THIS TOTAL, APPROXIMATELY 7,000 TONNES WERE COMPOSTED BY THE METROPOLITAN WORKS DEPARTMENT AT A CENTRAL SITE AT THE AVONDALE BORROW PIT, ADJACENT TO THE KEELE VALLEY LANDFILL, WHILE THE REMAINDER WERE COMPOSTED AT SITES OPERATED BY THE AREA MUNICIPALITIES. IN 1989, ALL LEAVES WERE BANNED FROM METROPOLITAN TORONTO'S DISPOSAL FACILITIES AND WERE COLLECTED SEPARATELY FOR COMPOSTING IN BULK OR IN CLEAR PLASTIC BAGS. METROPOLITAN TORONTO ASSISTED IN THE IMPLEMENTATION OF THE COLLECTION EFFORTS THROUGH PROMOTION AND FUNDING SUPPORT TO AREA MUNICIPALITIES FOR COLLECTION EQUIPMENT. APPROXIMATELY 25,000 TONNES WERE COLLECTED DURING THE 1989 LEAF PROGRAM.

BEGINNING IN THE 1988/89 CHRISTMAS SEASON METRO AREA MUNICIPALITIES ALSO RECYCLED CHRISTMAS TREES INTO WOOD CHIPS FOR USE IN MUNICIPAL PARKS. APPROXIMATELY 600 TONNES WERE RECYCLED IN 1988/89 AND A SIMILAR AMOUNT IS EXPECTED TO BE RECYCLED IN 1989/90.

AT PRESENT, ALL METRO MUNICIPALITIES RECOVER WHITE GOODS (LARGE METAL APPLIANCES) FOR RECYCLING. THE WHITE GOODS, WHICH WERE TRADITIONALLY INCLUDED IN SPECIAL PICK-UP PROGRAMS FOR BULKY ARTICLES ARE NOW COLLECTED SEPARATELY AND DELIVERED TO A SCRAP METAL DEALER. WHITE GOODS HAVE BEEN BANNED FROM ALL METROPOLITAN SITES SINCE JANUARY 18, 1989. APPROXIMATELY 2,500 TONNES WERE RECYCLED IN 1989.

BACKYARD COMPOSTING OF RESIDENTIAL FOOD AND YARD WASTE IS ANOTHER AREA THAT IS BEING DEVELOPED AS S.W.E.A.P. EVOLVES. IN THIS REGARD METROPOLITAN TORONTO IS SPONSORING A HOME COMPOSTING EDUCATION AND DEMONSTRATION PROJECT WITH THE RECYCLING COUNCIL OF ONTARIO. IN 1989, METROPOLITAN TORONTO CARRIED OUT A PILOT PROGRAM WHICH PROVIDED 19,700 HOUSEHOLDS WITH HOME COMPOSTING UNITS. THE NET COST OF THE COMPOSTERS, AFTER PROVINCIAL SUBSIDY, WAS SHARED JOINTLY BETWEEN THE HOMEOWNER AND METROPOLITAN TORONTO.

IN ADDITION, IN OCTOBER, 1988, METROPOLITAN COUNCIL APPROVED IN PRINCIPLE TWO MAJOR COMPOSTING INITIATIVES. ONE INVOLVES ESTABLISHMENT OF A PILOT WET COLLECTION PROGRAMME FOR APPROXIMATELY 10,000 HOUSEHOLDS, IN WHICH WET ORGANIC WASTE WILL BE COLLECTED SEPARATELY FOR COMPOSTING. PHYSICAL MODIFICATIONS ARE BEING MADE TO THE EXISTING FORMER PROVINCIAL EXPERIMENTAL RESOURCE RECOVERY PLANT TO COMPOST THE SOURCE SEPARATED MATERIALS. THE OTHER INITIATIVE INVOLVES THE DESIGN, SITING AND CONSTRUCTION OF A 190 TONNE PER DAY COMPOSTING PLANT TO PROCESS SELECTED ORGANIC MATERIAL FROM COMMERCIAL AND INDUSTRIAL SOURCES.

ON SEPTEMBER 29, 1987, METROPOLITAN COUNCIL APPROVED THE IMPLEMENTATION OF A PERMANENT PROGRAM BY THE METROPOLITAN WORKS DEPARTMENT TO RECEIVE AND PROVIDE PROPER DISPOSAL FOR HOUSEHOLD HAZARDOUS WASTES AT TEN WORKS DEPARTMENT LOCATIONS IN METROPOLITAN TORONTO AND THE REGIONS OF DURHAM AND YORK. A COLLECTION PROGRAM KNOWN AS THE "TOXICS TAXI", IN WHICH RESIDENTS CALL IN TO ARRANGE FOR A PICK-UP OF THEIR HOUSEHOLD HAZARDOUS WASTE WAS LATER IMPLEMENTED IN APRIL 1989.

A NUMBER OF INITIATIVES HAVE ALSO BEEN UNDERTAKEN BY METROPOLITAN TORONTO TO FACILITATE INCREASED RECYCLING OF INDUSTRIAL WASTE. THESE INITIATIVES TO DATE HAVE FOCUSED ON PROVIDING INDUSTRY WITH ADVICE, INFORMATION AND SUPPORT TO UNDERTAKE RECYCLING PROGRAMS AND ESTABLISHING POLICIES AIMED AT WASTE MINIMIZATION.

UNDER METRO'S RECYCLING OPPORTUNITY NOTICE AND WASTE IDENTIFICATION PROGRAMS, PERSONNEL AT METROPOLITAN TORONTO DISPOSAL FACILITIES VISUALLY INSPECT LOADS OF INCOMING WASTE AND IDENTIFY LOADS THAT CONTAIN A HIGH CONCENTRATION OF RECYCLABLE MATERIAL. ONE OF METROPOLITAN TORONTO'S INDUSTRIAL WASTE REDUCTION CO-ORDINATORS THEN CONTACTS THE HAULER AND GENERATOR AND ENCOURAGES THEM TO RECOVER FUTURE LOADS OF SUCH MATERIAL FOR RECYCLING AND, ASSISTS IN LOCATING A MARKET FOR THE RECYCLABLE MATERIAL. THE PROGRAMS ALSO HELP TO ENSURE THAT NO LIQUID OR SOLID HAZARDOUS WASTES ENTER OUR FACILITIES.

METROPOLITAN STAFF ALSO CONDUCT WASTE AUDITS. AN AUDIT INVOLVES VISITING A PLANT OR BUSINESS AND ASSISTING THE COMPANY IN DEVELOPING METHODS FOR WASTE REDUCTION AT SOURCE AND RECYCLING. THE WORKS DEPARTMENT HAS ALSO DEVELOPED A WORKING RELATIONSHIP WITH THE PROVINCIAL AND FEDERAL WASTE EXCHANGES, TO INCREASE INDUSTRIAL WASTE ABATEMENT IN METROPOLITAN TORONTO.

POLICIES HAVE ALSO BEEN ESTABLISHED TO FACILITATE RECOVERY OF RECYCLABLE MATERIALS BY THE PRIVATE SECTOR. SINCE SEPTEMBER 1, 1989, ALL LOADS CONTAINING MORE THAN 20 PER CENT. BY VOLUME OF RECYCLABLE CORRUGATED CARDBOARD HAVE BEEN PROHIBITED FROM METROPOLITAN DISPOSAL FACILITIES.

TIRES, WOOD WASTE AND DRYWALL ARE ALSO BEING TARGETED. EFFECTIVE JANUARY 1, 1990, TIRES WERE BANNED FROM METROPOLITAN DISPOSAL FACILITIES, EXCEPT FOR THOSE DELIVERED IN DESIGNATED LOADS TO OUR TIRE RECYCLING FACILITY AT THE KEELE VALLEY LANDFILL SITE. PROPOSALS FOR THE DIVERSION OF WOOD WASTE HAVE BEEN RECEIVED AND ARE CURRENTLY BEING EVALUATED. THE DISPOSAL OF RECYCLABLE DRYWALL WASTE AT ALL METROPOLITAN DISPOSAL FACILITIES WILL BE PROHIBITED EFFECTIVE MAY 1, 1990, SUBJECT TO THE COMPLETION OF A WASTE DRYWALL RECYCLING FACILITY TO BE OPERATED BY THE FIRM, NEW WEST GYPSUM ONTARIO INC..

AS WELL, THE RECENT INCREASES IN METROPOLITAN TIPPING FEES IS HAVING A SIGNIFICANT EFFECT OVER TIME ON THE AMOUNT OF INDUSTRIAL/COMMERCIAL WASTE REQUIRING DISPOSAL. EFFECTIVE MAY 1, 1988, TIPPING FEES WERE INCREASED FROM \$18 TO \$50/TONNE AT LANDFILL, FROM \$32 TO \$65/TONNE AT TRANSFER STATIONS. THESE RATES WERE FURTHER INCREASED, EFFECTIVE MAY 1, 1989, TO \$83 PER TONNE AT LANDFILL AND \$100 PER TONNE AT TRANSFER STATIONS. EFFECTIVE MAY 1, 1990, THE RATES ARE EXPECTED TO INCREASE TO APPROXIMATELY \$7.50 PER TONNE AT LANDFILL AND \$115.00 PER TONNE AT TRANSFER STATIONS.

IN CLOSING, EFFECTIVE WASTE MANAGEMENT PLANNING INVOLVE THE ESTABLISHMENT OF AN OPTIMAL AND REALISTIC MIX OF APPROACHES. REDUCTION, RE-USE AND RECYCLING CAN PLAY A SIGNIFICANT ROLE IN MANAGING OUR WASTE STREAM, HOWEVER, THEY DO NOT PROVIDE A PANACEA TO THE ENTIRE WASTE DISPOSAL PROBLEM. THE PRINCIPAL BENEFIT OF RECYCLING, REDUCTION AND RE-USE IS TO REDUCE THE AMOUNT OF SOLID WASTE WHICH MUST BE DISPOSED THROUGH THE TRADITIONAL METHODS OF LANDFILL AND INCINERATION.

IT SHOULD BE STRESSED THAT NO AMOUNT OF REDUCTION, RE-USE AND RECYCLING WILL ELIMINATE THE REQUIREMENT FOR A SANITARY LANDFILL. LANDFILL WILL ALWAYS BE REQUIRED FOR:

- MUNICIPAL SOLID WASTE WHICH CAN NOT BE RECYCLED OR INCINERATED.
- RESIDUALS FROM OTHER WASTE MANAGEMENT FACILITIES.
- MATERIALS WHICH CANNOT BE PROCESSED AT OTHER WASTE MANAGEMENT FACILITIES DUE TO EQUIPMENT FAILURE OR EXCEEDANCE OF CAPACITY.
- INCINERATOR ASH.
- STREET SWEEPINGS.
- WASTES FROM SEWAGE TREATMENT PLANTS.
- DEMOLITION AND CONSTRUCTION WASTE.

THE PROBLEMS CONFRONTING SOLID WASTE MANAGEMENT OFFICIALS TODAY ARE NOT WITHOUT TECHNICAL SOLUTION.

PERHAPS ONE OF THE GREATEST PROBLEMS WHICH WE IN METROPOLITAN TORONTO HAVE ENCOUNTERED AND MUST OVERCOME, IS IN THE AREA OF PUBLIC ATTITUDE AND EDUCATION. THE GENERAL PUBLIC MUST BE MADE TO UNDERSTAND THE NATURE OF THE SOLID WASTE MANAGEMENT PROBLEM TO WHICH THEY ARE CONTRIBUTING AND THEIR ROLE IN ITS SOLUTION. THEY MUST ACCEPT THE FACT THAT THEIR ACTIVE PARTICIPATION IS REQUIRED IN RECYCLING PROGRAMS SUCH AS THE BLUE BOX, IN SEPARATING HOUSEHOLD HAZARDOUS WASTE FROM OTHER REFUSE FOR PROPER HANDLING AND DISPOSAL. THEY MUST BE PREPARED TO ACCEPT HIGHER COSTS FOR SOLID WASTE MANAGEMENT RESULTING FROM THE IMPLEMENTATION OF MORE EXPENSIVE AND CAPITAL INTENSIVE WASTE MANAGEMENT TECHNOLOGIES AS WELL AS FROM POSSIBLE SPECIAL TAXES AND CHARGES WHICH MAY BE REQUIRED TO ENSURE MATERIALS ARE RECOVERED AND REUSED. ABOVE ALL, THEY MUST ACCEPT THAT THE PROPER MANAGEMENT OF SOLID WASTE WILL REQUIRE THE SITING OF WASTE MANAGEMENT FACILITIES WITHIN THEIR COMMUNITIES.